Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for detecting a baudrate in a Universal Asynchronous Receiver/Transmitter (UART), comprising:

calculating a first number of samplings for each pulse width based on at least one pulse generated from received data;

determining an estimated baudrate and a second number of samplings corresponding to the estimated baudrate based on the first number of samplings for each pulse width, respectively; and

detecting an optimum baudrate based on the second number of samplings;

wherein the at least one pulse generated from the received data corresponds to a transition from a '0' bit to a '1' bit or from a '1' bit to a '0' bit in the receive data, and

wherein each pulse width corresponds to a gap between the at least one pulse and a next generation pulse.

2. (Original) The method of claim 1, wherein calculating a first number of samplings for each pulse width is conducted by using at least one prescribed baudrate.

3. (Currently Amended) ~~The method of claim 1,~~ A method for detecting a baudrate in a Universal Asynchronous Receiver/Transmitter (UART), comprising:

calculating a first number of samplings for each pulse width based on at least one pulse generated from received data;

determining an estimated baudrate and a second number of samplings corresponding to the estimated baudrate based on the first number of samplings for each pulse width, respectively; and

detecting an optimum baudrate based on the second number of samplings,

wherein the estimated baudrate and the second number of samplings corresponding to the estimate baudrate are determined when the first number of samplings of a first input pulse width among a plurality of pulse widths is less than or equal to a prescribed value.

4. (Original) The method of claim 3, wherein the prescribed value is 10.

5. (Original) The method of claim 3, wherein the second number of samplings is adjusted by a prescribed baudrate in a descending order from a maximum baudrate until

the second number of samplings becomes less than or equal to the prescribed value, if the first number of samplings of the first input pulse width is greater than the prescribed value.

6. (Original) The method of claim 5, wherein the prescribed value is 10.

7. (Original) The method of claim 1, wherein calculating the estimated baudrate is executed by employing a mapping table.

8. (Original) The method of claim 1, wherein at least two estimated baudrates are calculated.

9. (Currently Amended) ~~The method of claim 1,~~ A method for detecting baudrate in a Universal Asynchronous Receiver/Transmitter (UART), comprising:

calculating a first number of samplings for each pulse width based on at least one pulse generated from received data;

determining an estimated baudrate and a second number of samplings corresponding to the estimated baudrate based on the first number of samplings for each pulse width, respectively; and

detecting an optimum baudrate based on the second number of samplings,

wherein detecting the optimum baudrate comprises:

providing the second number of samplings calculated based on the first number of samplings of a first pulse width by ~~means of~~ a baudrate detector corresponding to the estimated baudrate;

adding a present and a next sampling number in the baudrate detector until the number provided becomes greater than a prescribed number; and

storing word bits or removing word bits previously stored depending on the number of pulse widths and whether an error has occurred, if the sampling number exceeds the prescribed number.

10. (Original) The method of claim 9, wherein the prescribed number is 10.

11. (Original) The method of claim 9, further comprising generating an active signal in storing the word bits and determining whether the optimum baudrate was detected by calculating the number of a active signal.

12. (Original) An apparatus for detecting a baudrate in a Universal Asynchronous Receiver/Transmitter, comprising:

means for calculating a number of samplings for each of at least one pulse width based on at least one pulse produced from received data;

means for determining an estimated baudrate and a second number of samplings corresponding to the estimated baudrate, respectively, based on the first number of samplings for each pulse width; and

means for adding together a present and a next sampling number until the second number of samplings corresponding to the estimated baudrate becomes greater than a prescribed number, and outputting word bits depending on the number of pulse widths and whether an error has occurred.

13. (Original) The apparatus of claim 12, wherein the prescribed number is 10.

14. (Currently Amended) The apparatus of claim 12, wherein the means ~~of~~ for adding and outputting comprises a 1X baudrate detector, a 1.5X baudrate detector, a 2X baudrate detector, a 3X baudrate detector, a 4X baudrate detector, a 6X baudrate detector, and a 8X baudrate detector.

15. (Original) The apparatus of claim 14, wherein the 1X, 1.5X, 2X, 3X, 4X, 6X, and 8X baudrate detectors generate active signals when the respective word bit is output, respectively.

16. (Original) The apparatus of claim 15, further comprising:

means for storing the word bits; and

means for determining whether an optimum baudrate was detected by the number of active signals generated from 1X, 1.5X, 2X, 3X, 4X, 6X, and 8X baudrate detectors.

17. (Original) The apparatus of claim 12, further comprising means for inputting/outputting the respective pulse width calculated by the means for determining according to a first in first out (FIFO) sequence.

18. (Original) The apparatus of claim 13, wherein the means for calculating adjusts the number of samplings of pulse width in accordance with a prescribed baudrate.

19. (Original) The apparatus of claim 13, wherein the means for determining the estimated baudrate calculates the estimated baudrate and the second number of samplings corresponding to the estimated baudrate by utilizing a mapping table.

20. (Original) The apparatus of claim 13, wherein the means for determining the estimated baudrate calculates the estimated baudrate when the number of samplings of the first input pulse width among the number of samplings of a plurality of pulse widths becomes less than or equal to the prescribed number.

21. (Currently Amended) The apparatus of claim 13, wherein the available baudrate means activates only the X baudrate detector corresponding to a second estimated baudrate when a first estimated baudrate is not equal to the second estimated baudrate, and wherein the first estimated baudrate is the baudrate calculated from a previous pulse width and the second estimated baudrate is the baudrate calculated from a next pulse width.

22. (Currently Amended) A baudrate detection device, comprising:

a pulse generator, configured to receive an input signal and generate at least one pulse;

a sampling calculator, coupled to receive an output of the pulse generator and configured to generate ~~a first sampling number for~~ a first number of samplings for each pulse width between the least one pulse in accordance with an estimated baudrate;

an estimated baudrate detector, coupled to receive ~~the first sampling number~~ the first number of samplings and determine the estimated baudrate and ~~a second sampling number~~a second number of samplings corresponding to the estimated baudrate based on the first number of samplings for each pulse width, respectively; and

an optimum baudrate detector unit, configured to ~~generate~~ detect an optimal baudrate ~~in accordance with the estimated baudrate and the second sampling number~~based on the second number of samplings,

wherein the at least one pulse generated from the received data corresponds to a transition from a '0' bit to a '1' bit or from a '1' bit to a '0' bit in the received data, and

wherein each pulse width corresponds to a gap between the at least one pulse and a next generation pulse.

23. (Original) The device of claim 22, further comprising a register coupled to receive an output of the sampling calculator, configured to store the first sampling number and provide the first sampling number to the estimated baudrate detector.

24. (Original) The device of claim 22, wherein the estimated baudrate detector comprises a table to map the first sampling number to the estimated baudrate and the second sampling number.

25. (Original) The device of claim 22, further comprising a buffer configured to store an output of the optimum baudrate detector unit.

26. (Original) The device of claim 22, further comprising a counter configured to count an output of the optimum baudrate detector unit.

27. (Original) The device of claim 22, wherein the optimum baudrate detector unit comprises a plurality of optimum baudrate detectors, each configured to detect a prescribed baudrate.

28. (New) A baudrate detection device, comprising:

a pulse generator, for receiving an input signal and generating at least one pulse based on a transition of the input signal;

a sampling calculator for calculating a number of samplings for each pulse width according to a reference baudrate;

a first baudrate detector for determining at least one estimated baudrate based on the number of sampling of a first pulse width of the input signal and for calculating a number of samplings for each pulse width corresponding to the at least one estimated baudrate using a predetermined mapping table; and

a plurality of second baudrate detectors coupled to the first baudrate detector for detecting whether the input signal corresponds to at least one estimated baudrate based on the number of sampling for each pulse width and a parity error check.

29. (New) The baudrate detection device of claim 28, wherein the reference baudrate is adjusted or not based on the first number of samplings for the first pulse width.

30. (New) A method for detecting a baudrate in an universal asynchronous receiver/transmitter (UART), comprising:

receiving an input signal and generating at least one pulse based on a transition;

calculating a number of samplings for each pulse width using a reference baudrate;

determining at least one estimated baudrate based on the number of samplings of a first pulse width of the input signal and calculating a number of samplings for each pulse

width corresponding to the at least one estimated baudrate using a predetermined mapping table; and

detecting whether the input signal corresponds to at least one estimated baudrate based on the number of sampling for each pulse width and a parity error check.

31. (New) The method of claim 30, further comprising:

adding the present and the next sample numbers until the number of samplings corresponding to the at least one estimated baudrate becomes higher than a predetermined value.

32. (New) The method of claim 31, further comprising:

determining whether the reference baudrate is adjusted or not based on the first number of samplings for the first pulse width.

33. (New) The baudrate detection device of claim 28, wherein the at least one pulse generated from the received data corresponds to a transition from a '0' bit to a '1' bit or from a '1' bit to a '0' bit in the receive data, and

wherein each pulse width corresponds to a gap between the at least one pulse and a next generation pulse.

34. The method of claim 30, wherein the at least one pulse generated from the received data corresponds to a transition from a '0' bit to a '1' bit or from a '1' bit to a '0' bit in the receive data, and

wherein each pulse width corresponds to a gap between the at least one pulse and a next generation pulse.